The US Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ), "The Agencies", are in receipt of your February 10, 2017 letter stating Air Force's (AF's) intention to move forward with implementation of the Enhanced Bioremediation (EBR) work plan for ST12, despite the objections raised in our letter to you dated February 8, 2017 and the January 25, 2017 technical responses sent to Cathy Jerrard. In follow up to discussions during the February 14, 2017 Base Closure Team (BCT) meeting, we are hereby providing you with a list of issues, data gaps and missing information needed to resolve the informal dispute over the path forward for the former Fuels Spill Site, attached to this letter. A detailed list of our issues and the information needed are provided in the Attachment. The major concerns that the Agencies have include:

- The Agencies have very significant concerns that if Amec proceeds with the proposed injection of very large quantities of sulfate at high concentrations that microbial growth will be inhibited and thus contaminant degradation over a large portion of the contaminated area will be eliminated or reduced, which will allow the contaminant plume to migrate downgradient, and make it impossible to achieve the cleanup goals via biodegradation in any kind of a reasonable timeframe.
- The modeling that was performed, that Amec relied on to predict that EBR followed by MNA could remediate the site in approximately 20 years, was not predictive, and thus cannot be interpreted as support for Amec's contention that the cleanup goals can be achieved in an estimated 20 years.
- Site conditions in terms of the remaining LNAPL mass are different from those contemplated in the RODA for EBR/MNA, and EBR/MNA has not been tested and proven effective at a site of this size, complexity, and source mass.
- It has not been demonstrated that sulfate-reducing bacteria that can degrade benzene are present at this site.

The 2013 Record of Decision Amendment states, "The specific methods for Enhanced Bioremediation "EBR" will be established in consultation with EPA and ADEQ based upon biological and contaminant conditions after SEE implementation." In order to address the concerns of the Agencies while moving forward with EBR at ST012, the Agencies strongly recommend that:

- Delineation of the LNAPL-contaminated and dissolved phase plume of benzene at concentrations in excess of 5 ug/L be completed
- AF/Amec should perform laboratory analysis to demonstrate that benzene-degrading bacteria are present, and determine the optimal conditions for growth, including sulfate levels and temperature range
- A phased implementation of EBR be taken in the field that attempts to create the optimum conditions for microbial growth and benzene degradation as were determined in the laboratory analysis, and includes recirculation of groundwater to provide containment